Part First.

ORIGINAL COMMUNICATIONS. ✓

ARTICLE I.—*Remarks on the Change-of-Type Theory of Disease.*
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PNEUMONIA has hitherto been the chief bone, over which contention has been engaged in the discussion of the change-of-type theory of diseases. And not unnaturally so. Pneumonia, or rather that class of diseases which represented pneumonia to the eye of medicine in former days, brings with it a train of symptoms of an urgent and serious character, and which seem more instantly to demand relief than any other of the inflammatory disorders of the body. The urgency of the symptoms, then, in pneumonia, was the reason why the lancet was so liberally called into use by our forefathers for its cure.

It may, however, be very fairly doubted, whether, after all, pneumonia is the disease, the comparison of whose treatment, in former and modern days, is best adapted to the purpose of enlightening us, as to the truth or otherwise, of the theory of a change of type in diseases. I have already shown (see *Lancet*, Nov. and Dec. 1857) what a generic and comprehensive term this pneumonia was, as understood by the physician before the days of auscultation; what a variety of diseases it represented to his mind. And I may add that, even in our own days, notwithstanding the stethoscope and its powerful revelations—notwithstanding the many hair-quarterings minute stethoscopists so frequently indulge in about auscultatory signs—the term pneumonia is not an invariable quantity; that it does not represent to us, during life at least, a fixed and certain pathological condition of the lungs. Every clinical physician must admit the difficulty, which he frequently has to encounter, when he

would decide as to the exact nature of some disease of the lungs which he is treating. Is it pneumonia, or is it pleurisy, or something of both of these? Does the dulness of percussion-sound depend upon pleuritic effusion, or consolidation of the lung, or upon œdema, or upon hypostatic congestion of the lung? Does the crepitation result from capillary bronchitis, from the serous effusion of œdema into the bronchial tubes, or from pneumonia itself? These, and I might parade more of the same kind, are difficulties which often leave in dubio the judgment of the acutest stethoscopists *in many of the everyday cases of lung diseases*. Experience, I fancy, must teach every one that the tale of auscultation does not run as smoothly in the wards of an hospital as it does along the pages of our text-books. And this fact seems to me to throw a strong shade of suspicion upon the value of data, respecting the effects of blood-letting in pneumonia, drawn from statistics even in our own days. Blood-letting in so-called pneumonia, then, is certainly not always blood-letting in inflammation of the lungs, even in these enlightened days; and we know that it meant in Cullen's time nothing less than bleeding in the inflammations of any or all of the organs of the thorax.

It has therefore struck me, that the question is more likely to admit of satisfactory solution, if tried by the light of the effects of treatment in the case of some disease, concerning whose nature neither ancients nor moderns could have any chance of being deceived. This would, at all events, render the subject more clear, by removing all doubts as to the nature of the disease being alike in both cases, *i.e.*, in the hands of our forefathers and in our own. Now, such a disease we have to hand in acute rheumatism. Its presence in the body must have been as manifest to Sydenham as it is to us. Moreover, it is one of those diseases which bears in a very marked degree the characters to which the idea of phlogistic especially appertains, and which, therefore, demanded, as it was thought, the adoption of extreme antiphlogistic measures for its cure.

And if we will glance at the therapeutical history of acute rheumatism, from the time of Sydenham to this present, we shall find that the necessity for venesection in this disease has been maintained as an absolute dogma, by the several generations of physicians who have flourished during that period. The same sentiment is impressed upon the pages of our authoritative text-books of medicine at this very moment;¹ so that, in theory at least, the practice of to-day in this disease is the practice of many generations. There have been no undulations in the methods of treating it, such as might indicate changes in its type at different epochs of this long period—retrocessions and accessions in the vigour of the rheumatic inflammation. The stream of opinion here seems to have flowed

¹ When these lines were written, Dr Bennett's *Principles and Practice* was not before the profession.

steadily and uninterruptedly on, and almost up to the present moment. But now, at last, its uniformity is broken. Why is this? And how comes it that at this day the practical differs so remarkably from the theoretical treatment of acute rheumatism? Why do authorities preach up venesection, and at the same time rarely or never resort to its practice? A ready, and as it seems to very many a satisfactory, answer to the question is found in this change-of-type theory. I venture to think that a much more simple and rational one suggests itself in our better knowledge of the disease, our more enlarged therapeutic experience, and vastly superior pathology. This I will endeavour to show.

In the first place, I would refer to one curious fact in the history of this matter, which is well worthy the attention of the change-of-type theorist. It exhibits a *tendency* at least to some practical degree of similarity of opinion, upon the effects of bleeding in this disease, between our forefathers, who in theory and in practice adopted venesection, and ourselves, who admit it in theory but reject it in practice. Acute rheumatism, be it remembered, being *par excellence* of the phlegmasiæ tribe of diseases, in an especial manner demanded venesection, according to ancient ideas. How comes it then that physicians, one after the other from the time of Sydenham downwards, never fail to warn their readers against the evils of bleeding, while they are at the same time extolling its merits? Sydenham surely never spared the lancet; yet he lived long enough to see, and had the courage to confess, that he believed some of his patients would have recovered better if he had bled them less. Heberden, a century later, accepted the theory of bleeding: "In the acute sort"—he is speaking of rheumatism—"bleeding seems to be plainly pointed out in young persons of vigorous health." But Heberden was not a man to have his eyes blinded by the dust of ages of authorities, and he quietly adds: "But as much as I have been able to observe, the benefit of large and repeated bleedings is in most cases far from being clear and unquestionable." "One of the worst rheumatisms, which I remember, immediately succeeded a most profuse bleeding of the nose, which continued so long as almost to exhaust the patient, and to bring his life into imminent danger." "For the most part," says Cullen, "large and repeated bleedings, during the first days of the disease, *seem*¹ to be necessary, and, accordingly, have been very much employed: but to this some bounds are to be set; for very profuse bleedings occasion a slow recovery, and, if not absolutely effectual, are ready to produce a chronic rheumatism."

The idea of inventing a theory to explain the ill effects of over-bleeding, never seems to have occurred to Sydenham or any of his illustrious followers. They saw and admitted the evils which bleeding produced, as well as the benefits of it. The result of this, we

¹ The italics are not Cullen's.

may reasonably surmise, was, that a change has been for a long time gradually and imperceptibly introducing itself into the venesection practice. Men still in theory praised bleeding, but in practice used it less vigorously. The good of it became less manifest and the evils more so, until at last, in these latest days, the practice may be considered as almost wholly abandoned—at times, perhaps, to the prejudice of the patient.

In this case of acute rheumatism, observers could more distinctly mark the consequences of the bleeding than they could in the doubtful case of pneumonia. They discovered at last that, however large and repeated their bleedings, the *materies morbi* was not to be "*evacuated at the mouth of the vein*;" and thus vanished this theory of the practice. Then the other theory came in force. If large bleedings do not drain out the morbid principle, still, it is said, small depletions relieve the pain, diminish the feverish violence of the heart, and aid the action of other remedies; and this is asserted by those who, according to their own confession, rarely ever resort to them in practice. I will not stop here to ask, whether six ounces of blood, taken from the arm of a robust man in the early period of his disease, are likely to make any impression either good or bad upon it. It certainly does not seem compatible with common sense, or with what we see every day in practice, as the results of accidental losses of blood, that such venesection should be very impressive.

The value of the remedy has thus been gradually let down from its high position. From large and repeated bleedings in acute rheumatism physicians came to rare and small bleedings; then they resorted to depletion only in robust and vigorous constitutions; and now, at last, have risen up wise practitioners, who assert that, even in the young and vigorous, acute rheumatism does not require venesection; but that if men choose, for conscience sake, to practise it in such, after the modern mitigated formula, there is no great objection to their doing so, in that a few ounces more or less of blood in the veins of a strong man cannot be of much consideration to his well-being. Thus, in the end, have the tables been completely turned against the practice.

I will now endeavour to show, that this revolution or reformation in practice came about not to satisfy any modern asthenic condition of human nature, but simply from the reason of the thing itself—from an improved pathology. And I will venture to believe, that here, as in the case of pneumonia, large and repeated bleedings neither are, nor ever at any period of man's history could have been, the proper treatment for acute rheumatism.

We may, I suppose, assume it as a fact beyond dispute, that the morbid element, whatever it be, which occasions that series of characteristic symptoms to which the name of rheumatic fever is given, is the same identical element now as it ever was; that the formation or accumulation in the blood of the noxious materials,

which excite these symptoms, took place formerly equally as now. We have here, then, a disease to deal with to which the name of specific may be justly applied. The disorder is general, and it is not the consequence of the local inflammations; but, on the contrary, the local inflammations are the consequences of the general disorder. The disease which was once called arthritis, we now call rheumatic fever. It has a distinct course to run, and we cannot cut it short at once by our remedies. There is some improper element in the blood, which must be purged out of it, or neutralized (as the theory goes), before the patient can return to health. Some pathologists have even gone so far as to give a name to the poisonous matter.

Now if, in this disease, it be found that there is a particular treatment which, beyond all manner of doubt or cavil, has a clear and distinct effect upon the symptoms, reducing their force and expediting their cure, we may safely affirm that such a remedy, whether acting as a directly neutralizing agent upon the morbid matter or not, must have at all times been one which, if administered, would have been equally as efficacious as we find it to be now. Such a remedy we undoubtedly possess in the salts of potash, when given in sufficiently large doses. I say that we now undoubtedly have such a remedy, because there is a consentaneousness of opinion among physicians upon this point of practice, because the fact is plainly demonstrable, and because we daily see the anticipated result follow the antecedent remedy almost as surely as A follows B in the alphabet, not in isolated cases, but in the very great majority of instances where it is administered. The remedy manifestly bears with it some of the features of a specific remedy. Moreover, we do not find that bleeding and other agencies have any such mastery over the disease. We have all, I suppose, at one time or other, seen the most vigorous men largely bled in this disease, and bled in vain. We have all seen them mercurialised, and mercurialised in vain; and we have all seen relief derived from purgatives and from opium, and the patient recover, whichever line of treatment was practised. But, most certainly, we have never witnessed from bleeding, or mercury, or opium, or purgatives, such marked effects ensue, and so constantly ensue, as we witness in the case where alkalies are largely administered.

A rational pathology brings us to the belief, that, in acute rheumatism, there is a poisonous matter circulating with the blood through the body; and an empirical or experimental treatment of the disease has led us, through manifest results, frequently and constantly ensuing, to the rational conclusion, that we possess an agent which will also enter the blood, and which there acts as a neutralising force to the pernicious matter.

Bleeding then, it must be argued, is not the remedy for this disease, and never could have been the remedy; but yet our Faculty has never failed, through all times down even to our own, to ply

the lancet vigorously—and frequently even to proclaim the instrument their “sheet-anchor”—in the treatment of acute rheumatism. Here are present, in a most marked degree, those especial signs which incontestably justify, as it has been asserted, the abstraction of blood in inflammation of the lungs—the hard full pulse, the loaded tongue, the high fever, and above all the buffed and cupped blood. Gregory and his predecessors, we have been triumphantly told, might have been ignorant of the exact condition of the thoracic organs, they might have been mistaken in their diagnosis of what was going on in the chest; but the states of the pulse, and the tongue, and the fever, and the abstracted blood, these were facts as patent to them as they are to us; these they could not have misinterpreted, and these were the justification of their practice in pneumonia. But will those who argue thus venture now to assert that these things were the justification of the practice of bleeding in acute rheumatism—to assert this in the face of our more enlightened pathology and therapeutics? I fancy not. I fancy they must admit that bleeding never could have been the prime essential remedy in acute rheumatism, even though they still assert that bleeding expedited the cure *incidentally*. And if this admission is made in the case of acute rheumatism, then, by a most logical inference, as it seems to me, those gentlemen will be forced to reconsider the value of their position as regards pneumonia. If an *inflammatory* condition of the pulse, an *inflammatory* condition of the blood, and a *high fever*, do not absolutely demand venesection in rheumatism, then it may be inferentially questioned whether these are the signs which inevitably indicate the propriety of bleeding in pneumonia.

ARTICLE II.—*Case of Fatal Hæmatemesis, with Abnormal Splenic Vein.* By WALTER WATSON, M.D., Surgeon, Ludgate Lodge, Ratho.

W. N., æt. 20, clerk, a lad of spare, delicate habit and anæmic appearance, was seized, early in the morning of Sunday, 6th September 1857, with vomiting of blood. Mr Craig was sent for, and found already vomited half a wash-

Symptoms. hæmatemesis. On examining the abdomen, he detected an enormously enlarged spleen. The pulse was tolerably good as to frequency, firmness, and fulness. The patient was disturbed as little as possible, and was ordered tablespoonful doses of Henry's saturated solution of sulphate of magnesia (with additional acid) every second hour, till free purging should be induced. The utmost quietness was enjoined, cold drinks prescribed, and cold also applied over the region of the stomach.

Sunday, 9 A.M.—Hæmatemesis to a less extent had recurred in the interval; the blood presented the same appearances, and contained fragments of undigested food. Purging had ensued, and brought away a large quantity of black feculent matter. Ordered Pil. Plumbi. ij.

1 P.M.—Progressing favourably.